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2687

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06/07/2007

EXAMINER

LIEU, JULIE BICHNGOC

ART UNIT

PAPER NUMBER

2612

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

10/049,985

Applicant(s)

AISA, VALERIO

Examiner

Julie Lieu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 13 March 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 47-96 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-87 is/are rejected.
- 7) ☒ Claim(s) 88-96 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. This Office action is in response to Applicant's response filed March 13, 2007. No claims have been amended, canceled, or added.
2. The indicated allowability of claims 47-96 is withdrawn in view of the newly discovered reference(s) to Enoki et al. (US Patent No. 5,428,342). Rejections based on the newly cited reference(s) follow.

#### ***Claim Objections***

3. Claim 48 is objected to because of the following informalities: "an external device" perhaps should read "said external device". Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 47-61, 68-83, and 85-88 are rejected under 35 U.S.C. 102(b) as being anticipated by Enoki et al. (US Patent No. 5,428,342.)

Claim 47:

Enoki et al. (Enoki) discloses a monitoring device for monitoring a household electric user presenting an electric load, comprising:

- a. a detector 31 for determining at various times the quantity of electric power or current absorbed by the electric user;
- b. a memory 33 for retaining reference data or profiles of electric power or current that are absorbed during operating cycles of a corresponding type of electric user;
- c. a processor 39 for determining status information that is representative of the present status or phase of operation of the household electric user based on the quantities of electric power or current determined by the detector and the stored reference values;  
and
- d. communication means 38 for providing the status information to an external device 362.

See figs. 2, 3, and 7, col. 3 line 16 to col. 4, line 37, and claim 1 of the reference.

Claim 48:

Processor 39 further determines efficiency information being representative of the efficiency or performance status of the household electric user based on the quantity of electric power or current determined by the detector and the stored reference values, and the communication means provides the efficiency information to an external device. See figs. 2 and 3, col. 3 line 16 to col. 4, line 37, and claim 1 of the reference.

Claim 49:

Processor 39 further determines wear information relating to estimating the wear status of components of the household electric user, and the communication means provides the wear information to an external device. See figs. 2 and 3, col. 3 line 16 to col. 4, line 37, and claim 1 of the reference.

Claim 50:

The reference data or profiles contained in the memory described in the reference are representative of a theoretical level of absorption of electric power or current that the household electric user would absorb if operating correctly under normal conditions. Col. 3 line 16 to col. 4, line 37, and claim 1 of the reference.

Claim 51:

Processor 39 compares the quantities determined by the detector with the reference data or profiles to determine the status information. Col. 3 line 16 to col. 4, line 37, and claim 1 of the reference.

Claim 52:

Processor 39 provides the status information to the memory.

Claim 53:

Processor 39 in Enoki

- a. determines efficiency information indicating the quality of operation of the household electric user and/or the efficiency status of its internal components, the efficiency information relating to deviations which are considered significant between the quantities determined by the detector and the stored reference data or profiles;

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- b. determines wear information relating to the wear status of components of the household electric user and/or the modes of previous use of the household electric user; and
- c. retains the efficiency and wear information in the memory.

Claim 54:

Communication means 381 includes a connection to a communication bus, the communication means making the status information available to the bus and receiving instructions from the bus. Fig. 7.

Claim 55:

Communication means 38 is a connection to an external electronic apparatus 362 as seen in fig. 7, communication means 38 providing the external electronic apparatus 362 access to the status information and access to the programming of the device. See fig. 8 and col. 7 line 13 to col. 8, line 8.

Claim 56:

Communication means 38 is a connection to an external electronic apparatus, the communication means providing the external electronic apparatus access to the status, efficiency and wear information and access to the programming of the device. See fig. 8 and col. 7 line 13 to col. 8, line 8.

Claims 57 and 58:

It is inherent that a switch that operates under the control of the processor for interrupting the electric supply to the household electric user and the processor controlling the switch based on instructions received over the bus. See col. 7, lines 23-44.

Claim 59:

The system in Enoki further includes configuration means for selecting, among a plurality of possible selections, the type of electric user that corresponds to the household electric user. Col. 5, lines 30-64.

Claim 60:

Memory 33 contains a plurality of reference data or profiles relating to the operations of various types of electric user and the configuration means selects the reference data or profile relating to the particular household electric user that is associated with the device.

Claims 61:

It is inherent that the electric user in the Enoki system includes a manual switch.

Claims 68-83:

The rejection of these claims recites what was discussed in the rejection of claims 47-61, except they are method claims.

Claim 85:

Enoki discloses a system for monitoring and controlling household appliances that utilize power from the electric mains, the system including:

- a. one or more first household appliances that communicate over a communication network; and
- b. one or more monitoring devices for monitoring and controlling a corresponding number of second household appliances, each monitoring device communicating over the communication network on behalf of the associated second household appliance and including:

- i. a detector 31 for determining at various times the quantity of electric power or current absorbed by the associated second household appliance,
- ii. a memory 33 for retaining reference data or profiles of electric power or current absorbed during operating cycles of a corresponding type of household appliance;
- iii. a processor 39 for determining status information that is representative of the present status or phase of operation of the second household appliance based on the quantity of absorbed electric power or current determined by the detector and the stored reference data or profiles; and
- iv. a node 38 for communicating on the communication network, the node providing the status information over the network.

Claim 86:

The rejection of claim 86 recites the rejection of claim 48 wherein communications means 38 is a node.

Claim 87:

The monitoring device in Enoki further determines wear information relating to estimating the wear status of components of the associated second household appliance, and the node provides the efficiency information over the network.

Claim 88:

In Enoki, the reference data or profiles are representative of a theoretical level of absorption of electric power or current that the associated second household appliance would



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absorb if operating correctly under normal operating conditions.

*Claim Rejections - 35 USC § 103*

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. Claims 62-66 and 84 are rejected under 35 U.S.C. 103(a) as being unpatentable over Enoki et al. (US Patent No. 5,428,342.)

Claim 62:

processor 39 using the sensor readings to analyze the operations of the household electric user. It is not clear whether current sensor 31 is a differential sensor for detecting current leaks to ground. Nevertheless, it would have been obvious to one skilled in the art to use a differential

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sensor in the Enoki system because all current sensors are functionally equivalent and it is only up to the implementer's discretion to use a particular current sensor type depending on the configuration of the system, its availability, and cost.

Claim 63:

Though the reference fails to explicitly disclose the use of a temperature sensor, it infers the use of a temperature sensor for sensing ambient temperature, and the processor using the ambient temperature information to analyze the operations of the household electric user. See col. 2, last paragraph.

Claim 64:

It is not clear that communication means is an asynchronous serial line. However, one skilled in the art would have readily recognized implementation the Enoki system so that the communications between the monitoring system and the external is asynchronous serial line since it is a conventional communications design.

Claims 65, 66, and 84:

Though it is not clear the alarm in Enoki's system includes an acoustic and/or optical signaling means under the control of the processor for signaling anomalous conditions of operation of the household electric user, it would have been obvious to one skilled in the art that alarm 50 is some form of acoustic and/or optical signaling means because they are conventional forms of alarms signaling. It is inherent that the signal means in Enoki's system is under control of the processor for signaling the status of the switch. Fig. 3.

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9. Claim 67 is rejected under 35 U.S.C. 103(a) as being unpatentable over Enoki et al. (US Patent No. 5,428,342) in view of Kass et al. (US Patent No. 5,670,074).

Claim 67:

The reference fails to disclose the processor receiving information from one or more external sensors where the one or more external sensors is a gas sensor, a flood sensor, or a smoke sensor and the processor controls the switch to interrupt the electric supply based, in part, on the readings of the external sensors. However, the concept of interrupting the power supply to an electric device when a hazardous condition is sensed is old and conventional in the art as shown in Kass et al.. In light of this teaching, it would have been obvious to one skilled in the art to apply this concept into the system of Enoki's because it would further enhance safety measures.

*Allowable Subject Matter*

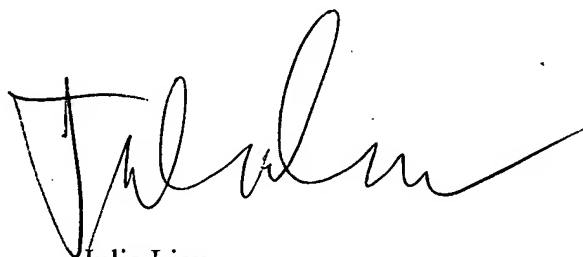
10. Claims 89-96 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julie Lieu whose telephone number is 571-272-2978. The examiner can normally be reached on MaxiFlex.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel Wu can be reached on 571-272-2964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to read 'Julie Lieu', with a stylized, flowing script.

Julie Lieu  
Primary Examiner  
Art Unit 2612

June 01, 07